NDT A289: CLINICAL EXPERIENCE 4

Item	Value
Curriculum Committee Approval Date	10/05/2022
Top Code	121200 - Electro-Neurodiagnostic Technology
Units	3.5 Total Units
Hours	192 Total Hours (Lab Hours 192)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Open Entry/Open Exit	No
Grading Policy	Pass/No Pass (B)

Course Description

Clinical practice in neurodiagnostic testing with an emphasis on evoked potential and more specialized neurodiagnostic testing procedures. This clinical also further develops advanced skills in electroencephalographic recording and analysis. PREREQUISITE: NDT A286 and NDT A288. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Perform routine NDT procedures such as Evoked Potentials and EEG exams recognizing normal and abnormal EEG activity consistently, measurement and analysis of waveform data, while demonstrating professional health care attitudes.

Course Objectives

- I Objectives Related to Behavior:
- I. 1. *+Demonstrate a willingness to adhere to the individual lab's policies and dress regulations.
- I. 2. +Be neat and well groomed, and properly identifies as per Orange Coast College catalog.
- I. 3. +Assume responsibility for notifying the department when unable to attend.
- I. 4. +Assume responsibility for arriving on time and staying the allotted time.
- I. 5. +Conduct self in an ethical manner as a health care professional.
- I. 6. *+Seek instruction and use criticism to improve performance.
- I. 7. *+Demonstrate a positive attitude to the clinical experience.
- I. 8. Attend 12 hours per week.
- I. 9. *+Maintain work area in an orderly and clean fashion.
- II Objectives Related to Performance in EEG:
- II. 1. *+Relate to patients for good cooperation.
- II. 2. *+Calibrate the machine within 100% accuracy.
- II. 3. Learn the lab's montages within 1 week.
- II. 4. *+Take a valid patient history.
- II. 5. *+Identify artifact with 100% accuracy.
- II. 6. *+Identify normal rhythms, including sleep, with 100% accuracy.
- II. 7. *+Use machine settings (filters, sensitivity...) accurately and when necessary.
- II. 8. *+Apply electrodes accurately within 20 25 mins.
- II. 9. *+Monitor artifacts within 100% accuracy.
- II. 10. *+Identify abnormalities with 90% accuracy.
- II. 11. *+Justify appropriate use of montages within 90% accuracy.
- II. 12. *+Students should write a description of each EEG they perform, and each should be reviewed by the technologist.
- III Objectives Related to Performance in Evoked Potentials:
- III. 1. *+Explain each test procedure clearly, and obtain optimal patient cooperation.
- III. 2. *Apply electrodes accurately with respect to each modality tested.
- III. 3. Become familiar with the labs protocols in each of the modalities.
- III. 4. *+Take valid patient histories.
- III. 5. *+Identify and measure important data from EP waveforms.
- III. 6. *+Make necessary calculations for Physician interpretations.
- III. 7. *+Set up EP equipment to the desired protocols for each modality.
- III. 8. *+Recognize and remedy artifacts on the EP.
- III. 9. *Utilize the appropriate stimulus for each modality.
- III. 10. *Have an understanding of the labs normative data, for comparison and evaluation of normal versus abnormal.
- IV Other Objectives: The student is to become actively interested in all aspects of Neurodiagnostic Technology by asking for more responsibilities and by observing/performing as many of the various testing as possible. All students are encouraged to obtain (where possible) exposure in some or all of the following areas:
- IV. 1. Quantitative EEG EP (Mapping)
- IV. 2. Telemetry
- IV. 3. Ambulatory EEG
- IV. 4. Polysomnography
- IV. 5. Surgical monitoring applications of EEG EP
- IV. 6. NCV, ENG, TCD...

Lecture Content

This course is a clinical experience. There is no lecture.

Lab Content

This course consists of continued practical hands on experience in a clinical setting. Modalities covered will vary depending on the clinical assignment, but should include performance and observation of evoked potentials in the auditory, visual, and somatosensory modality. Clinical Training Clinical Site Infection control methods and isolation procedure Proper cleaning/disinfection techniques and disposal of equipment NDT instrumentation Performance Objectives NDT modality electrode application 20-25 minutes or under Patient history Clinical Montages Identification/elimination/monitoring of artifacts with 100% accuracy Identification and testing of normal/variant waveforms with 100% accuracy Identification of abnormal waveforms with testing with 90% accuracy Appropriate documentation during NDT modality Technical Impressions Troubleshooting techniques Behavioral Objectives Effective time management Effective Communication with patients, family and other healthcare providers Professional attitudes towards patients, family

and other healthcare providers Other: Taking on more responsibility and observing/performing as many of the various NDT testing modalities (site dependent): Quantitative EEG EP (mapping) Long Term Monitoring Ambulatory EEG Surgical monitoring application of EEG EP Nerve Conduction Velocity, Electroretinography, Transcranial Doppler Studies Performance and Behavioral Evaluation Observation and evaluation of student performance and self-reflection during mid-clinical Observation and final student evaluation in performing routine EEG and/or EP exams independently. End Eva luation Identify strengths and weaknesses to improve upon for next clinical rotation.

Method(s) of Instruction

- Lab (04)
- Field Experience (90)
- Non-Directed Clinical (NDR)

Instructional Techniques

Supervised clinical practice at affiliated hospitals. Students perform as if on the job by testing patients. Procedure demonstration, and return skill demonstration with continual feedback of performance.

Reading Assignments

ACNS Guidelines for routine EEG and EP examinations. (0.25-0.5 hrs/wk)

Writing Assignments

Written reports of patients clinical history, test results, testing parameters, and required record keeping as per lab protocol. Documentation of daily procedural logs and technical impressions. This is generally completed during clinical hours. Otherwise, students will spend 0.5-1 hr/week.

Out-of-class Assignments

This is a clinical rotation.

Demonstration of Critical Thinking

Equipment troubleshooting Modification of electrode application Modification of NDT software application

Required Writing, Problem Solving, Skills Demonstration

Required to make written reports of patients clinical history, test results, testing parameters, and required record keeping as per lab protocol. Skill demonstration of electrode application and documentation on exam. EEG activation procedures Performance evaluation Procedure log

Eligible Disciplines

Diagnostic medical technology-diagnostic medical sonography, neurodiagnosti...: Any bachelor's degree and two years of professional experience, or any associate degree and six years of professional experience.

Manuals Resources

1. Banoczi, W. and Liang, T. Handbook. Neurodiagnostic Technology Program Student Clinical, OCC , 08-01-2022

Other Resources

1. As required by prerequisites. Materials will be provided by clinical coordinator, or available in the college bookstore.